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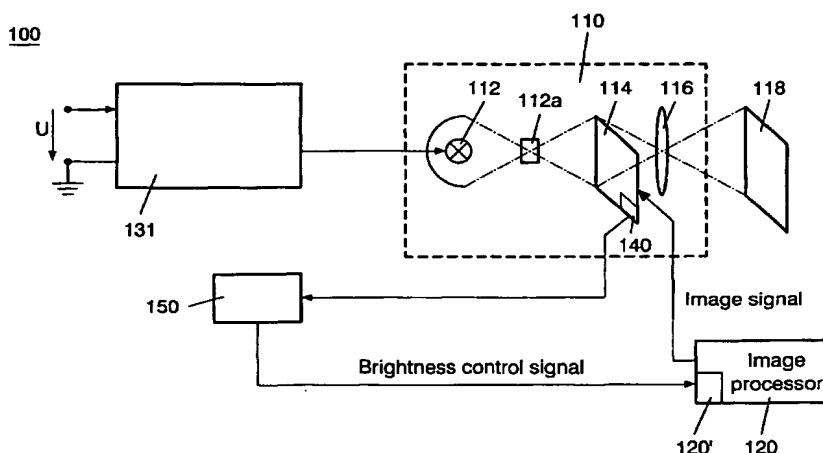
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(54) Title: IMAGE PROJECTOR AND METHOD OF OPERATING SAME



(57) Abstract: The invention relates to an image projector with a High-Intensity-Discharge HID lamp (112) and a method of operating it. Such lamps have the disadvantage that their voltaic arc jumps back and forth between different positions at unforeseeable times during operation. This so-called arc jumping has the effect of changing the brightness, i.e. the overall brightness and / or the brightness distribution of the light emitted by the HID lamp (112). For the viewer of an image projected with such a projector, this effect appears as a jolt of this projected image. To avoid such effects for the viewer, it is first proposed according to the invention that changes in the brightness of the light in the image projector's beam path are detected. As soon as a change in brightness caused by an arc jump has been detected, this brightness is reset to a brightness detected at a moment t-2 before the arc jump, in order subsequently to convert it during a predetermined time interval T to the brightness resulting from the arc jump. This resetting must occur so soon after the arc jump, and the conversion so slowly, that the changes in the brightness of the light incident on a picture screen device (118) resulting from the arc jump, the reset, and the conversion are not perceptible to the human eye.



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## INTERNATIONAL SEARCH REPORT

International Application No.

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A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 7 H04N5/74 H05B41/39

According to International Patent Classification (IPC) or to both national classification and IPC

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Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	EP 1 280 387 A (PHILIPS CORP INTELLECTUAL PTY ;KONINKL PHILIPS ELECTRONICS NV (NL)) 29 January 2003 (2003-01-29) page Q paragraphs '0026!-'0037! ---	1-21
A	US 6 115 022 A (INOVA PETER J ET AL) 5 September 2000 (2000-09-05) column 10, line 1 -column 11, line 9; figure 3 ---	1-21
A	DE 12 71 755 B (HELL RUDOLF DR ING FA) 4 July 1968 (1968-07-04) the whole document -----	1-21

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

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